NO. 47.

BULLETIN OF FOREIGN PLANT INTRODUCTIONS.

September 1 to 15, 1910.

NEW PLANT IMMIGRANTS.

ANONA MONTANA. (Annonaceae.) 28763. From Mayaguez, Porto Rico. Presented by Mr. W. E. Hess, Assistant Horticulturist. "A small tree, indigenous to the West Indies. The fruit is subglobose, muricate and the flesh dry and unedible. Introduced for trial as a stock for the cultivated Anonas." (P. J. Wester.) For distribution later.

CALLIGONUM CAPUT-MEDUSAE. (Polygonaceae.) 28323. From Russia. Received through Prof. N. E. Hansen. "A native sand-binder from Bokhara. Same source as S. P. I. No. 28321, (Salsola arbuscula)." (Hansen.) For distribution later.

CERTONIA SILIQUA. (Caesalpiniaceae.) 28739. Carob cuttings from Valencia, Spain. Presented by Mr. R. S. Woglum. (See photograph.) For distribution later.

HALOXYLON AMMODENDRON. (Chenopodiaceae.) 28322. From Russia. Received through Prof. N. E. Hansen. "A native sand-binder from Bokhara. Same source as S. P. I. No. 28321, (Salsola arbuscula)." (Hansen.) For distribution later.

LATHYRUS SATIVUS. (Fabaceae.) 28595. From Spain. Presented by Mr. R. L. Sprague, American Consul. "Alverjones. These are used for green manure and can be procured in larger quantities than Yero (Vicia ervilia, S. P. I. No. 28594), at about the same price. The practical result is considered better." (Sprague.) For distribution later.

MANGIFERA INDICA. (Anacardiaceae.) 28691-703. From Saharanpur, India. Seeds purchased from the Superintendent, Government Botanic Gardens. Thirteen varieties of mango as follows: Sanduria, Singapuri, Gopal Bhog, Ennurea, Faizan, Tamancha, Sunahra, Sharbati brown, Bulbulchasm, Calcutta Amin, Hathijhul, Chickna and Faquirmala. For distribution later.

MANGIFERA INDICA. (Anacardiaceae.) 28752-760. From Saharanpur, India. Seeds purchased from the Superintendent, Government Botanic Gardens. Nine varieties of mango as follows: Gola, Khaparia, Langra, Bombay Green, Fajri round, Fajri long, Lamba Bhadra, Malda and Najibabadi. For distribution later.

MANGIFERA INDICA. (Anacardiaceae.) 28748-751. From Poona, Bombay, India. Seeds purchased from the Empress Botanical Gardens.

Four varieties of mango as follows: Badsha, Fernandez, Gudbeli and P'ote (?). For distribution later.

MELINIS MINUTIFLORA. (Poaceae.) 28767-768. From Sao Paulo, Brazil. Purchased from Mr. H. M. Lane, Mackenzie College. "One of the best forage grasses of this section. It grows well on poor ground and will stand long periods of drought. It also makes good hay." (Lane.) For distribution later.

PARSONIA PADDISONII. (Apocynaceae.) 28766. From Sydney, New South Wales. Presented by the Curator, Department of Public Instruction. "A glabrous wood climber. The stem is about one inch in diameter, a foot or so above the ground, the bark being quite corky in nature. Stock are very fond of the leaves, so that this should be ranked as a fodder plant. My attention was first drawn to it by Mr. A. Paddison of New Angledool, who sent for identification, a large tuber or 'yam' weighing about ten pounds, stating that similar yams were eaten by both settlers and aborigines. The interior is composed of a whitish substance, the chemical analysis of which shows only 4½ per cent of carbonaceous principles. It tastes very much like a turnip, both in the raw and cooked condition. The color and consistency of the largest specimens resemble those of the common mangel-wurzel." (R. T. Baker.) "A vine generally found growing at the foot of, and twisting itself around some small tree, and that tree in nine cases out of ten a 'wilga' (Geijera parviflora). The top 'yam' of the plant we dug was 4 inches from the surface, and the deepest that we could find was 21 inches from the surface. We dug up all that we could find, carried them home and weighed each one separately, 29 yams in all. The total weight was 101¼ lbs., the largest one weighing 12¼ lbs." (A. Paddison.) For distribution later.

PHASEOLUS MAX. (Fabaceae.) 28765. Woolly Pyrol from Port-of-Spain, Trinidad. Presented by the Assistant Secretary of the Board of Agriculture, at the request of Mr. R. B. Dickson. For distribution later.

PRUNUS ARMENIACA. (Amygdalaceae.) 28745. From Harput, Turkey. Presented by Mr. Wm. W. Masterson, American Consul. "An unusually fine tasting fruit that might be called a 'plumcot'. It was about the size of a green-gage plum, of a light yellow color and had a decided apricot flavor, indicating that it was a hybrid between the plum and apricot." (Masterson.) For distribution later.

SALIX HUMBOLDTIANA. (Salicaceae.) 28709. From Limavida, Chile. Presented by Mr. J. D. Husbands. "A Chilean willow that grows

wild principally in the sands of the river bottom lands. Its greatest use is for live fence posts in wet or water covered lands. The bark is used in medicine as an astringent, febrifuge, etc., and is a valuable remedy. The bark also gives a white, crystallized substance called 'Salicina' used in fever as quinine." (Husbands.) For distribution later.

SALIX HUMBOLDTIANA FASTIGIATA. (Salicaceae.) 28710. From Limavida, Chile. Presented by Mr. J. D. Husbands. "The Chilean Castilla. All the branches grow up right close to the trunk, like a well-trimmed Popular. They grow perfectly straight to a great height. I have seen these trees growing in the worst arid clays, perfectly dry." (Husbands.) For distribution later.

SALIX VITELLINA. (Salicaceae.) 28708. From Limavida, Chile. Presented by Mr. J. D. Husbands. "Yellow mimbre. Introduced into Chile from Europe by the Spanish. An industrial plant of value; grows in waste spots, along the edge of canals, creeks, etc. It is used to make extra strong baskets for fruit, potatoes, corn and for general farm and factory uses to tie fences, thatches, etc." (Husbands.) For distribution later.

SALSOLA ARBUSCULA. (Chenopodiaceae.) 28321. From Russia. Received through Prof. N. E. Hansen. "A native plant of arborescent growth from the sand dunes of Bokhara, gathered by courtesy of Mr. W. Paletsky in charge of the sand dune planting of the Trans-Caspian Railway. This plant is used to prevent the moving sands from encroaching on the track. These experiments show great originality and demonstrate the superiority of the native plants of Turkestan for this purpose. The onward march of the moving sands has been checked, which formerly caused great expense in railway management." (Hansen.) For distribution later.

SOLANUM SP. (Solanaceae.) 28771. Wild potato presented by Dr. J. N. Rose, U. S. National Museum. "Collected in Zacatecas, Mexico, by Mr. F. E. Lloyd." (Rose.) For distribution later.

SOLANUM SP. (Solanaceae.) 28747. From Asuncion, Paraguay. Presented by Mr. T. R. Gwynn. "The wild potato grows here in great profusion. The plant and leaf are almost exactly like the cultivated potato; the roots are very different, sending out a long string, at the end of which is attached the potatoes, sometimes as large as an unhulled walnut, though generally much smaller." (Gwynn.) For distribution later.

SOLANUM COMMERSONII. (Solanaceae.) 28746. From Montevideo, Uruguay. Presented by Mr. Fred W. Goding. For distribution later.

SOLANUM JAMESII. (Solanaceae.) 28770. Wild potato from Portal, Arizona. Presented by Mr. Arthur H. Zachau, Forest Supervisor. "Collected on the Chiricahua National Forest." (A. Chittenden.) For distribution later.

SOLANUM MAGLIA. 28705-706. SOLANUM COMMERSONII. 28707. (Solanaceae.) From Marseilles, France. Presented by Prof. Edward Heckel, Director of Botanic Gardens. Tubers of wild Solanums and of a mutation from Solanum Maglia. For distribution later.

VICIA ERVILIA. (Fabaceae.) 28594. From Spain. Presented by Mr. R. L. Sprague, American Consul. "Yero. This vetch is sown throughout Andalusia, but never plowed under for green manure. When the crop is ripe it is gathered and given to cattle during the winter months. I hear from Almeira that this vetch is not cultivated there; horse beans are sown instead." (Sprague.) For distribution later.

VOANDZEIA SUBTERRANEA. (Fabaceae.) 28744. From Island of Mauritius. Presented by Mr. G. Regnard, Port Louis. "Bambara ground nuts. Nuts are eaten boiled, which are very rich and nourishing. From Africa." (Regnard.) For distribution later.

WATSONIA SP (?) (Iridaceae.) 28743. Presented by Mr. G. Regnard, Port Louis. "From Ponce Mountain, Mauritius. Pink color." (Regnard.) For distribution later.

ZIZYPHUS JUJUBA. (Rhamnaceae.) 28764. From Las Cruces, New Mexico. From Mr. David Griffiths. "There are two trees, one of them being 12 feet high, about 12 to 15 years old. They have had very poor conditions and are badly crowded. They are loaded with fruit. The fruits are about the size of damson plums, and of fair quality." (Griffiths.) For distribution later. (See Zizyphus photograph.)

NOTES FROM FOREIGN CORRESPONDENTS.

BELGIUM, Brussels. Mr. Gerret P. Wilder, Sept. 4. Will leave London Oct. 26 for Barbados, via Azores. Will visit the West Indian Islands, including St. Thomas, Porto Rico, Jamaica, Antigua, Domingue and Cuba. Will cross Mexico, passing through Guadalajara and up through Southern California. Will send scions of anything that he finds which he thinks is worth while.

BOLIVIA, La Paz. Mr. Alexander Benson, Aug. 18. Will send specimens of corn next month, and specimens of wild potatoes early in February.

CHINA, Nanking. Mr. Samuel Cochran, Aug. 10. Sends samples of hemp from Kinkiang that he thinks of good quality, and will put us in touch with Americans who can get us seed.

EGYPT, Cairo. Khedival Agricultural Society, Aug. 28. Will send seeds of El Hagi (Alhagi camelorum) when they mature, which will be in adout 20 days. Tamarix mannifera, called in Arabic Al Akoul, is a wild bush. Cuttings can be obtained and rooted in pots. Will send some in March.

SPANISH CAROB TREE.
(Ceratonia siliqua.)

A grafted variety, "Vera", the pods of which are unusually sweet and delicate. This tree is one of a large orchard near Alicante that is maintained for its valuable pods which are exported to England for fodder purposes. The tree has demonstrated its ability to grow in many parts of California, and its value as a fodder plant is being investigated. The pods contain 40 per cent of sugar and 7 to 8 per cent of protein, and single trees bear as much as 400 to 500 lbs. of pods a year. All the best varieties are being secured for trial.

ZIZYPHUS VULGARIS.

An orchard of Chinese jujubes (Zizyphus vulgaris), at Chang-li, China. Grafted varieties of the Chinese jujube or T'sao produce fruits which are quite as good eating, when properly prepared, and as large as Arabian dates. Seedling jujube trees occur in many parts of the United States; these should be grafted with the large-fruited Chinese varieties, several of which were secured from China, and are growing and fruiting at the U. S. Plant Introduction Garden, Chico, California.